Supplemental data

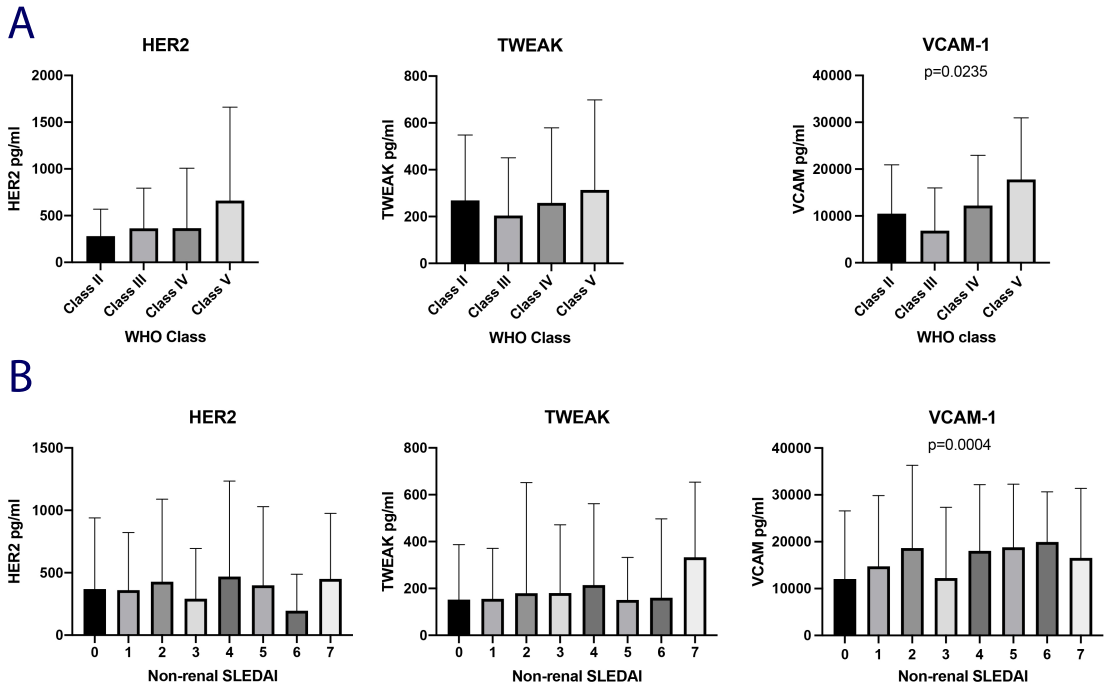

Figure S1. Biomarker Characteristics

A) We divided the cohort according to renal biopsy at entry according to the ISN class reported in the biopsy report. There were biopsies with a mixed picture and those were excluded. This analysis averages all the longitudinal samples for all patients with the same entry WHO class. Only VCAM-1 is significantly associated with ISN class using Kruskal Wallis. B) The cohort was analyzed according to the non-renal SLEDAI components on the day of sampling to investigate the contribution of systemic inflammation. There was no trend of increasing biomarkers with increasing numbers of non-renal SLEDAI components analyzed by Kruskal Wallis for HER2 and TWEAK. The x-axis references cumulative numbers of non-renal SLEDAI components. The bars indicate means and the error bars represent standard deviation.

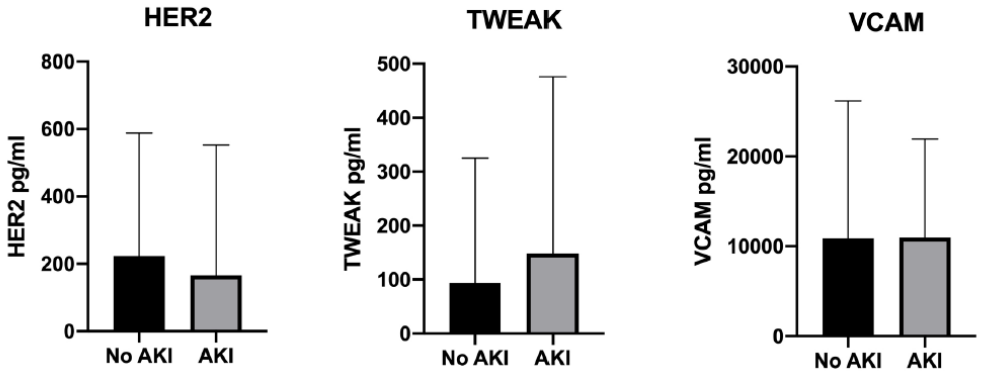

Figure S2. Acute Kidney Injury
Urine samples were collected prospectively from children and young adults >2 years of age undergoing their first allogeneic bone marrow transplant. AKI was defined as an increase in the serum creatinine, obtained clinically at the same time of the monthly urine sample (±1 day), at least 50% above the pre-conditioning baseline. There were no statistically significant differences between the AKI timepoints and the non-AKI timepoints.

Supplemental Table S1
Epidemiologic and clinical characteristics of the pediatric patients at the time of entrance in the study

Demographic and Clinical Characteristics	
Age (years; N=113)	
Minimum	4
Maximum	21
Average and standard deviation	15 ± 3
Sex (n;%)	
Female	92 (81%)
Male	21 (19%)
Race (n;%; N=113)	
African-American	40 (35%)
Caucasian	28 (25%)
Hispanic	19 (17%)
Asian	14 (12%)
Multiple/Other	12 (11%)
Clinical Manifestations (n; %; N=111)[1]	
Malar rash	52 (47%)
Discoid rash	16 (14%)
Photosensitivity	14 (13%)
Oral Ulcers	22 (20%)
Arthritis	73 (66%)
Serositis	36 (32%)
Renal disease	111 (100%)
Neurologic disorders	6 (5%)
Hematologic disorders	76 (68%)
Immunologic disorders	107 (96%)
ANA test positive	108 (97%)
Autoantibodies (n/N; %)	
Anti-dsDNA	78/101 (77%)
Anti-Sm	60/100 (60%)
Anti-RNP	59/99 (60%)
Anti-Phospholipids	60/101 (59%)
Lupus Nephritis WHO Class (n;%; N=113)	
Class I	2 (2%)
Class II	13 (11%)
Class II and V	3 (3%)
Class III	27 (24%)
Class III/IV	6 (5%)
Class III and V	8 (7%)
Class IV	33 (29%)
Class IV and V	7 (6%)
Class V	11 (10%)
Inconclusive	3 (3%)

n: number of patients who have a certain characteristic; N: total number of patients with data available regarding a particular variable; GABA: Gama-aminobutyric acid; IV: intravenous; SC:

subcutaneous; SNRIs: Serotonin and norepinephrine reuptake inhibitors; SSRIs: Selective serotonin reuptake inhibitors.

Supplemental Table S2
Medications

Treatment (n/N; %)	
Hydroxychloroquine	
At time of entrance in the study	105/113 (93%)
Prior to entrance in the study	3/113 (3%)
Ever	108/113 (96%)
Corticosteroids	
At time of entrance in the study	87/113 (77%)
Prior to entrance in the study	26/113 (23%)
Ever	113/113 (100%)
Mycophenylate mofetil	
At time of entrance in the study	88/113 (78%)
Prior to entrance in the study	11/113 (10%)
Ever	99/113 (88%)
Cyclophosphamide oral	
At time of entrance in the study	1/111 (1%)
Prior to entrance in the study	4/111 (4%)
Ever	5/111 (5%)
Cyclophosphamide IV	
At time of entrance in the study	9/112 (8%)
Prior to entrance in the study	22/112 (20%)
Ever	31/112 (28%)
Azathioprine	
At time of entrance in the study	8/110 (7%)
Prior to entrance in the study	1/110 (1%)
Ever	9/110 (8%)
Tacrolimus	
At time of entrance in the study	2/110 (2%)
Prior to entrance in the study	2/110 (2%)
Ever	4/110 (4%)
Cyclosporine A	
At time of entrance in the study	0/110 (0%)
Prior to entrance in the study	1/110 (1%)
Ever	1/110 (1%)
Leflunomide	
At time of entrance in the study	0/111 (0%)
Prior to entrance in the study	1/111 (1%)
Ever	1/111 (1%)
Methotrexate oral	
At time of entrance in the study	3/112 (3%)
Prior to entrance in the study	5/112 (4%)
Ever	8/112 (7%)
Methotrexate SC	

At time of entrance in the study	1/112 (1%)
Prior to entrance in the study	7/112 (6%)
Ever	8/112 (7%)
Rituximab	
At time of entrance in the study	5/113 (4%)
Prior to entrance in the study	22/113 (19%)
Ever	27/113 (24%)
Belimumab	
At time of entrance in the study	0/113 (0%)
Prior to entrance in the study	2/113 (2%)
Ever	2/113 (2%)
Tocilizumab	
At time of entrance in the study	1/113 (1%)
Prior to entrance in the study	0/113 (0%)
Ever	1/113 (1%)
IVIG	
At time of entrance in the study	2/112 (2%)
Prior to entrance in the study	1/112 (1%)
Ever	3/112 (3%)
NSAIDs	
At time of entrance in the study	12/90 (13%)
Prior to entrance in the study	29/90 (32%)
Ever	41/90 (46%)
Tricyclic antidepressants	
At time of entrance in the study	4/83 (5%)
Prior to entrance in the study	0/83 (0%)
Ever	4/83 (5%)
SSRIs	
At time of entrance in the study	4/83 (5%)
Prior to entrance in the study	0(83 (0%)
Ever	4/83 (5%)
SNRIs	
At time of entrance in the study	0/82 (0%)
Prior to entrance in the study	1/82 (1%)
Ever	1/82 (1%)
GABA	
At time of entrance in the study	3/83 (4%)
Prior to entrance in the study	2/83 (2%)
Ever	5/83 (6%)
Opioids	
At time of entrance in the study	1/79 (1%)
Prior to entrance in the study	21/79 (27%)
Ever	22/ 79 (28%)
Herbal and non-vitamin supplements	
At time of entrance in the study	4/62 (6%)
Prior to entrance in the study	4/62 (6%)
Ever	8/62 (13%)

Supplemental Table S3
Medications associated with flare in Logistic Regression analysis

Medication	**P value Rise in serum Cr**	**P value Rise in R-SLEDAI**	**P value New-onset proteinuria**
Methotrexate	NS	NS	NS
Mycophenolate	NS	NS	NS
Rituximab	0.0060	NS	0.0055
Systemic steroids	NS	0.0164	NS